

Sox-18 (E-2): sc-166670

BACKGROUND

Sox genes comprise a family of genes that are related to the mammalian sex determining gene SRY. These genes similarly contain sequences that encode for the HMG-box domain, which is responsible for the sequence-specific DNA-binding activity. Sox genes encode putative transcriptional regulators implicated in the decision of cell fates during development and the control of diverse developmental processes. The highly complex group of Sox genes cluster at least 40 different loci that rapidly diverged in various animal lineages. At present, 30 Sox genes have been identified. Members of this family have been shown to be conserved during evolution and to play key roles during animal development. Some are involved in human diseases, including sex reversal. Sox-18 is a 384 amino acid nuclear protein that contains one HMG box DNA-binding domain and belongs to the Sox family of transcriptional regulators.

REFERENCES

- Dunn, T.L., et al. 1995. Sequence and expression of Sox-18 encoding a new HMG-box transcription factor. *Gene* 161: 223-225.
- Azuma, T., et al. 2000. cDNA cloning, tissue expression, and chromosome mapping of human homolog of Sox-18. *J. Hum. Genet.* 45: 192-195.
- Hosking, B.M., et al. 2001. Sox-18 directly interacts with MEF2C in endothelial cells. *Biochem. Biophys. Res. Commun.* 287: 493-500.
- Wilson, M. and Koopman, P. 2002. Matching Sox: partner proteins and co-factors of the Sox family of transcriptional regulators. *Curr. Opin. Genet. Dev.* 12: 441-446.
- Schepers, G.E., et al. 2002. Twenty pairs of Sox: extent, homology, and nomenclature of the mouse and human sox transcription factor gene families. *Dev. Cell* 3: 167-170.
- Irrthum, A., et al. 2003. Mutations in the transcription factor gene Sox-18 underlie recessive and dominant forms of hypotrichosis-lymphedema-telangiectasia. *Am. J. Hum. Genet.* 72: 1470-1478.

CHROMOSOMAL LOCATION

Genetic locus: SOX18 (human) mapping to 20q13.33; Sox18 (mouse) mapping to 2 H4.

SOURCE

Sox-18 (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 180-215 within an internal region of Sox-18 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166670 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Sox-18 (E-2) is recommended for detection of Sox-18 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Sox-18 siRNA (h): sc-36527, Sox-18 siRNA (m): sc-36528, Sox-18 shRNA Plasmid (h): sc-36527-SH, Sox-18 shRNA Plasmid (m): sc-36528-SH, Sox-18 shRNA (h) Lentiviral Particles: sc-36527-V and Sox-18 shRNA (m) Lentiviral Particles: sc-36528-V.

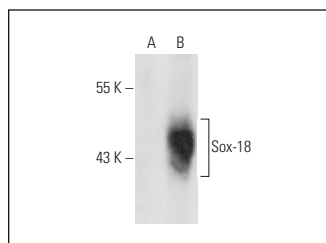
Molecular Weight of Sox-18: 45 kDa.

Positive Controls: L6 whole cell lysate: sc-364196, rat brain extract: sc-2392 or Sox-18 (h): 293T Lysate: sc-111552.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Sox-18 (E-2): sc-166670. Western blot analysis of Sox-18 expression in non-transfected: sc-117752 (A) and human Sox-18 transfected: sc-111552 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.